4/6/04

=> fil reg FILE 'REGISTRY' ENTERED AT 10:53:29 ON 06 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 4 APR 2004 HIGHEST RN 671180-42-0 DICTIONARY FILE UPDATES: 4 APR 2004 HIGHEST RN 671180-42-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

VAR G1=CHO/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L29 9849 SEA FILE=REGISTRY SSS FUL L27

100.0% PROCESSED 122800 ITERATIONS

SEARCH TIME: 00.00.05

9849 ANSWERS

```
=> d que 130
           3379 SEA FILE=REGISTRY ABB=ON PLU=ON 23290/RID
L12
           3476 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR ?VANCOMYCIN?/CNS
T<sub>1</sub>17
L18
             97 SEA FILE=REGISTRY ABB=ON PLU=ON L17 NOT L12
             96 SEA FILE=REGISTRY ABB=ON PLU=ON L18 NOT CCS/CI
L19
             40 SEA FILE=REGISTRY ABB=ON PLU=ON L19 NOT SQL/FA
L20
            36 SEA FILE=REGISTRY ABB=ON PLU=ON L20 NOT ?TRANSFERASE?/CNS
L21
             61 SEA FILE=REGISTRY ABB=ON PLU=ON L18 NOT L21
L22
           3415 SEA FILE=REGISTRY ABB=ON PLU=ON L17 NOT L22
L23
L27
                STR
```

VAR G1=CHO/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

L29 9849 SEA FILE=REGISTRY SSS FUL L27

L30 0 SEA FILE=REGISTRY ABB=ON PLU=ON L29 AND L23

=> d que 131

L27 STR

6 0 |||| 2 C---- S-- Ak-G1 3 4 5

VAR G1=CHO/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

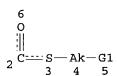
STEREO ATTRIBUTES: NONE

L29 9849 SEA FILE=REGISTRY SSS FUL L27

L31 0 SEA FILE=REGISTRY ABB=ON PLU=ON L29 AND ?VANCOMYCIN?/CNS

=> d sta que 146

L27 STR



VAR G1=CHO/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

L29 9849 SEA FILE=REGISTRY SSS FUL L27

L41 STR

6 0 ||| 2 C--- S-- Ak-- CHO 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L42 90 SEA FILE=REGISTRY SUB=L29 SSS FUL L41

L43 32 SEA FILE=REGISTRY ABB=ON PLU=ON L42 AND (C18H34OS2 OR C7H12OS2 OR C8H14O2S OR C13H16O2S OR C7H10O2S OR C5H8O2S OR C8H14O2S OR C9H16O2S OR C4H6O2S OR C12H12O2S OR C13H22O2S OR

C8H14O2S OR C9H16O2S OR C4H6O2S OR C12H12O2S OR C13H22O2S OR C6H10O2S OR C11H2OO2S OR C11H12O2S OR C9H16O2S OR C12H14O2S OR C8H14O2S OR C13H24O2S OR C7H10O2S OR C5H6O2S OR C10H8O2S OR

C17H16O2S)

L44 58 SEA FILE=REGISTRY ABB=ON PLU=ON L42 NOT L43

L45 2 SEA FILE=REGISTRY ABB=ON PLU=ON L44 AND (C18H34O2S OR

C7H12O2S)

L46 34 SEA FILE=REGISTRY ABB=ON PLU=ON (L43 OR L45)

=> d sta que 156

L27 STR

6 0 ||| 2 C---- S-- Ak-G1 3 4 5

VAR G1=CHO/N

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L29 9849 SEA FILE=REGISTRY SSS FUL L27

L54 STR

6 O NH—Ak Ak—Cy NH—Cy ## @7 8 @9 10 @11 12 2 C---S-G2-G1

VAR G1=NH2/7/11

VAR G2=AK/9
NODE ATTRIBUTES:

```
CONNECT IS M1 RC AT
                       2
CONNECT IS M1 RC AT
                      1.0
CONNECT IS M1 RC AT
                      12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11
STEREO ATTRIBUTES: NONE
            509 SEA FILE=REGISTRY SUB=L29 CSS FUL L54
100.0% PROCESSED 9780 ITERATIONS
                                                            509 ANSWERS
SEARCH TIME: 00.00.01
=> d his
     (FILE 'HOME' ENTERED AT 09:40:00 ON 06 APR 2004)
                SET COST OFF
     FILE 'HCAPLUS' ENTERED AT 09:40:16 ON 06 APR 2004
                E MU Y/AU
             21 S E3, E7
L1
                E MU YONG/AU
             22 S E5, E11
L2
              2 S (US20030078371 OR US20020077280)/PN OR (WO2001-US14000 OR WO2
L3
                E ADV MED/PA,CS
              2 S E5, E6
L4
                E ADVAN MED/PA, CS
                E ADVANC MED/PA, CS
                E ADVANCED MED/PA, CS
L5
             60 S E5-E9,E65-E77
            101 S L1-L5
L6
                SEL RN
                DEL SEL
     FILE 'REGISTRY' ENTERED AT 09:44:08 ON 06 APR 2004
     FILE 'HCAPLUS' ENTERED AT 09:44:08 ON 06 APR 2004
                SET SMARTSELECT ON
                               3410 TERMS
Ь7
            SEL L6 1- RN :
                SET SMARTSELECT OFF
     FILE 'REGISTRY' ENTERED AT 09:44:12 ON 06 APR 2004
           3410 S L7
Ь8
            505 S L8 AND VANCOMY?
L9
            306 S L8 AND S/ELS
L10
            113 S L9 AND L10
L11
                E 23290/RID
           3379 S E3
L12
            505 S L8 AND L12
L13
            565 S L12 AND S/ELS
L14
            555 S L14 AND OC5/ES
L15
             10 S L14 NOT L15
L16
           3476 S L12 OR ?VANCOMYCIN?/CNS
L17
```

97 S L17 NOT L12

61 S L18 NOT L21

96 S L18 NOT CCS/CI

40 S L19 NOT SQL/FA

36 S L20 NOT ?TRANSFERASE?/CNS

L18

L19 L20

L21 L22

```
3415 S L17 NOT L22
L23
           565 S L23 AND S/ELS
L24
                STR
L25
             36 S L25
L26
               STR L25
L27
            50 S L27
L28
           9849 S L27 FUL
L29
                SAV TEMP L29 KAM847/A
              0 S L29 AND L23
L30
             0 S L29 AND ?VANCOMYCIN?/CNS
L31
     FILE 'HCAPLUS' ENTERED AT 09:52:27 ON 06 APR 2004
          5597 S L23
L32
           6924 S ?VANCOMYCIN?
L33
          7296 S L32,L33
L34
          12614 S L29
L35
L36
              7 S L34 AND L35
              0 S L6 AND L36
L37
                SEL HIT RN L36
     FILE 'REGISTRY' ENTERED AT 09:54:58 ON 06 APR 2004
T.38
           12 S E1-E12
             2 S L38 AND L23
L39
             10 S L38 AND L29
L40
                STR L27
L41
             90 S L41 FUL SUB=L29
L42
                SAV L42 KAM847A/A
             32 S L42 AND (C18H34OS2 OR C7H12OS2 OR C8H14O2S OR C13H16O2S OR C7
L43
             58 S L42 NOT L43
L44
              2 S L44 AND (C18H34O2S OR C7H12O2S)
L45
             34 S L43, L45
L46
                SAV L46 KAM847B/A
     FILE 'HCAPLUS' ENTERED AT 10:46:30 ON 06 APR 2004
L47
             37 S L46
              0 S L47 AND L6
L48
L49
             0 S L47 AND L34
             26 S L46 (L) RACT+NT/RL
L50
     FILE 'REGISTRY' ENTERED AT 10:48:05 ON 06 APR 2004
               STR L41
L51
             46 S L51 SAM SUB=L29
L52
            826 S L51 FUL SUB=L29
L53
                SAV TEMP L53 KAM847C/A
L54
                STR L51
             25 S L54 CSS SAM SUB=L29
L55
            509 S L54 CSS FUL SUB=L29
L56
                SAV TEMP L56 KAM847D/A
     FILE 'HCAPLUS' ENTERED AT 10:52:48 ON 06 APR 2004
            170 S L56
L57
              0 S L57 AND L50
L58
              0 S L57 AND L47
L59
     FILE 'REGISTRY' ENTERED AT 10:53:29 ON 06 APR 2004
=> => fil req
FILE 'REGISTRY' ENTERED AT 11:00:45 ON 06 APR 2004
```

Property values tagged with IC are from the ZIC/VINITI data file

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STRUCTURE FILE UPDATES: 4 APR 2004 HIGHEST RN 671180-42-0 DICTIONARY FILE UPDATES: 4 APR 2004 HIGHEST RN 671180-42-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

```
=> d sta que 164
           3379 SEA FILE=REGISTRY ABB=ON PLU=ON
                                                  23290/RID
L12
           3476 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L12 OR ?VANCOMYCIN?/CNS
L17
L18
             97 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L17 NOT L12
L19
             96 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L18 NOT CCS/CI
             40 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L19 NOT SQL/FA
L20
             36 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L20 NOT ?TRANSFERASE?/CNS
L21
             61 SEA FILE=REGISTRY ABB=ON
                                          PLU=ON
                                                  L18 NOT L21
L22
L23
           3415 SEA FILE=REGISTRY ABB=ON PLU=ON L17 NOT L22
L60
                STR
 6
 0
    -- S
```

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

L62 3476 SEA FILE=REGISTRY ABB=ON PLU=ON (L17 OR L23)

L64 45 SEA FILE=REGISTRY SUB=L62 SSS FUL L60

100.0% PROCESSED 45 ITERATIONS

45 ANSWERS

SEARCH TIME: 00.00.01

=> d his

(FILE 'HOME' ENTERED AT 09:40:00 ON 06 APR 2004)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 09:40:16 ON 06 APR 2004

E MU Y/AU

L1 21 S E3, E7

E MU YONG/AU

L2 22 S E5,E11

L3 2 S (US20030078371 OR US20020077280)/PN OR (WO2001-US14000 OR WO2 E ADV MED/PA,CS

```
2 S E5,E6
L4
              E ADVAN MED/PA,CS
               E ADVANC MED/PA, CS
               E ADVANCED MED/PA,CS
            60 S E5-E9,E65-E77
Ь5
            101 S L1-L5
L6
                SEL RN
                DEL SEL
     FILE 'REGISTRY' ENTERED AT 09:44:08 ON 06 APR 2004
     FILE 'HCAPLUS' ENTERED AT 09:44:08 ON 06 APR 2004
                SET SMARTSELECT ON
            SEL L6 1- RN : 3410 TERMS
L7
                SET SMARTSELECT OFF
    FILE 'REGISTRY' ENTERED AT 09:44:12 ON 06 APR 2004
           3410 S L7
L8
            505 S L8 AND VANCOMY?
L9
L10
            306 S L8 AND S/ELS
L11
            113 S L9 AND L10
                E 23290/RID
           3379 S E3
L12
L13
           505 S L8 AND L12
           565 S L12 AND S/ELS
L14
       555 S L14 AND OC5/ES
L15
            10 S L14 NOT L15
L16
           3476 S L12 OR ?VANCOMYCIN?/CNS
L17
            97 S L17 NOT L12
L18
            96 S L18 NOT CCS/CI
L19
            40 S L19 NOT SQL/FA
L20
            36 S L20 NOT ?TRANSFERASE?/CNS
L21
            61 S L18 NOT L21
L22
         3415 S L17 NOT L22
L23
           565 S L23 AND S/ELS
L24
L25
               STR
            36 S L25
L26
L27
               STR L25
            50 S L27
L28
           9849 S L27 FUL
L29
               SAV TEMP L29 KAM847/A
L30
              0 S L29 AND L23
L31
              0 S L29 AND ?VANCOMYCIN?/CNS
     FILE 'HCAPLUS' ENTERED AT 09:52:27 ON 06 APR 2004
L32
          5597 S L23
          6924 S ?VANCOMYCIN?
L33
          7296 S L32,L33
L34
          12614 S L29
L35
              7 S L34 AND L35
L36
L37
              0 S L6 AND L36
                SEL HIT RN L36
     FILE 'REGISTRY' ENTERED AT 09:54:58 ON 06 APR 2004
             12 S E1-E12
L38
L39
             2 S L38 AND L23
             10 S L38 AND L29
L40
                STR L27
L41
L42
             90 S L41 FUL SUB=L29
                SAV L42 KAM847A/A
            32 S L42 AND (C18H34OS2 OR C7H12OS2 OR C8H14O2S OR C13H16O2S OR C7
L43
L44
             58 S L42 NOT L43
```

2 S L44 AND (C18H34O2S OR C7H12O2S)

L45

```
L46 34 S L43,L45
SAV L46 KAM847B/A
```

FILE 'HCAPLUS' ENTERED AT 10:46:30 ON 06 APR 2004 37 S L46 L47 0 S L47 AND L6 L48 0 S L47 AND L34 L49 26 S L46 (L) RACT+NT/RL L50 FILE 'REGISTRY' ENTERED AT 10:48:05 ON 06 APR 2004 STR L41 L51 46 S L51 SAM SUB=L29 L52 826 S L51 FUL SUB=L29 L53 SAV TEMP L53 KAM847C/A STR L51 L54 25 S L54 CSS SAM SUB=L29 L55 509 S L54 CSS FUL SUB=L29 L56 SAV TEMP L56 KAM847D/A FILE 'HCAPLUS' ENTERED AT 10:52:48 ON 06 APR 2004 170 S L56 L57 0 S L57 AND L50 L58 L59 0 S L57 AND L47 FILE 'REGISTRY' ENTERED AT 10:53:29 ON 06 APR 2004 L60 STR L27

FILE 'HCAPLUS' ENTERED AT 11:00:25 ON 06 APR 2004 L65 3 S L64

FILE 'REGISTRY' ENTERED AT 11:00:45 ON 06 APR 2004

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 11:00:56 ON 06 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 6 Apr 2004 VOL 140 ISS 15 FILE LAST UPDATED: 5 Apr 2004 (20040405/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 165 all hitstr tot

kam - 09 / 847048 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN L65 2001:689112 HCAPLUS ANDN 136:70060 Entered STN: 20 Sep 2001 EDSynthesis and biological evaluation of vancomycin dimers with potent TI activity against vancomycin-resistant bacteria: target-accelerated combinatorial synthesis Nicolaou, K. C.; Hughes, Robert; Cho, Suk Young; Winssinger, Nicolas; ΑU Labischinski, Harald; Endermann, Rainer Department of Chemistry and The Skaggs Institute for Chemical Biology, The CS Scripps Research Institute, La Jolla, CA, 92037, USA Chemistry--A European Journal (2001), 7(17), 3824-3843 SO CODEN: CEUJED; ISSN: 0947-6539 Wiley-VCH Verlag GmbH PB Journal DTEnglish LΑ 34-3 (Amino Acids, Peptides, and Proteins) CC Section cross-reference(s): 1, 33 Based on the notion that dimerization and/or variation of amino acid 1 of AΒ vancomycin could potentially enhance biol. activity, a series of synthetic and chemical biol. studies were undertaken in order to discover potent antibacterial agents. We describe two ligation methods (disulfide formation and olefin metathesis) for dimerizing vancomycin derivs. and applications of target-accelerated combinatorial synthesis (e.g., combinatorial synthesis in the presence of vancomycin's target Ac2-L-Lys-D-Ala-D-Ala) to generate libraries of vancomycin dimers. Screening of these compound libraries led to the identification of a number of highly potent antibiotics effective against vancomycin-susceptible, vancomycin-intermediate resistant and, most significantly, vancomycin-resistant bacteria. ST target accelerated combinatorial synthesis vancomycin dimer library; ligation disulfide formation olefin metathesis vancomycin dimer synthesis; vancomycin dimer prepn antibacterial Peptides, preparation TΤ RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation) (oligopeptides; synthesis and biol. evaluation of vancomycin dimers with potent activity against vancomycin-resistant bacteria, including target-accelerated combinatorial synthesis) ΙT Antibacterial agents Peptide library (synthesis and biol. evaluation of vancomycin dimers with potent activity against vancomycin-resistant bacteria, including target-accelerated combinatorial synthesis) Combinatorial chemistry TT (target-accelerated; synthesis and biol. evaluation of vancomycin dimers with potent activity against vancomycin-resistant bacteria, including target-accelerated combinatorial synthesis) 383185-24-8P 383185-26-0P 383185-28-2P 383185-30-6P 321361-75-5P IT RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation) (synthesis and biol. evaluation of vancomycin dimers with potent activity against vancomycin-resistant bacteria, including target-accelerated combinatorial synthesis) 1404-90-6DP, Vancomycin, dimeric derivs. 321361-77-7P 321361-73-3P IT 383383-25-3P 383185-34-0P 383185-37-3P 321361-81-3P RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); SPN

study); PREP (Preparation) (synthesis and biol. evaluation of vancomycin dimers with potent activity against vancomycin-resistant bacteria, including target-accelerated combinatorial synthesis)

(Synthetic preparation); BIOL (Biological study); CMBI (Combinatorial

```
1119-94-4, Dodecyltrimethylammonium bromide
                                                                 105149-26-6
                                                  19993-26-1
IT
    RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial
    study); RACT (Reactant or reagent)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
                   383185-20-4
                                 383185-22-6
    383185-18-0
IT
    RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial
    study); RACT (Reactant or reagent)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
                                                  321361-87-9P
                                                                  321361-89-1P
                    321361-83-5P
                                   321361-85-7P
    321361-79-9P
IT
                                                  383183-14-0P
                                                                  383183-15-1P
                    321361-95-9P
                                   383183-13-9P
     321361-91-5P
                    383183-17-3P
                                   383183-18-4P
                                                  383183-19-5P
                                                                  383183-20-8P
     383183-16-2P
                                                  383183-24-2P
                                                                  383183-25-3P
     383183-21-9P
                    383183-22-0P
                                   383183-23-1P
                                                  383183-48-0P
                                                                  383183-49-1P
                    383183-28-6P
                                   383183-29-7P
     383183-26-4P
                                                  383183-53-7P
                                                                  383183-54-8P
                    383183-51-5P
                                   383183-52-6P
     383183-50-4P
                                                  383183-58-2P
                                                                  383183-59-3P
     383183-55-9P
                    383183-56-0P
                                   383183-57-1P
                                                                  383183-64-0P
     383183-60-6P
                    383183-61-7P
                                   383183-62-8P
                                                  383183-63-9P
                                                                  383183-70-8P
                                                  383183-69-5P
     383183-66-2P
                    383183-67-3P
                                   383183-68-4P
                                                                  383183-87-7P
                                                  383183-86-6P
     383183-83-3P
                    383183-84-4P
                                   383183-85-5P
                                                                  383183-92-4P
                                                  383183-91-3P
     383183-88-8P
                    383183-89-9P
                                   383183-90-2P
                                                  383183-96-8P
                                                                  383183-99-1P
                                   383183-95-7P
     383183-93-5P
                    383183-94-6P
                                   383184-06-3P
                                                  383184-09-6P
                                                                  383184-10-9P
     383184-01-8P
                    383184-03-0P
                                                  383184-17-6P
                                                                  383184-21-2P
     383184-11-0P
                    383184-13-2P
                                   383184-15-4P
                                   383184-27-8P
     383184-23-4P
                    383184-26-7P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
                 321361-97-1 321361-99-3 321362-01-0
                                                            321362-03-2
IT
     2127-03-9
                                               321362-11-2
                                                              321362-13-4
                                 321362-09-8
     321362-05-4
                   321362-07-6
     321362-17-8 383183-30-0 383183-31-1
     383183-32-2 383183-33-3 383183-34-4
     383183-35-5 383183-36-6 383183-37-7
     383183-38-8 383183-39-9 383183-40-2
     383183-41-3 383183-42-4 383183-43-5
     383183-44-6 383183-45-7 383183-46-8
     383183-71-9 383183-72-0 383183-73-1
     383183-74-2 383183-75-3 383183-76-4
     383183-77-5 383183-78-6 383183-79-7
     383183-80-0 383183-81-1 383183-82-2
                                 383184-33-6
                                               383184-34-7
                                                              383184-36-9
                   383184-31-4
     383184-29-0
                                                              383184-47-2
                   383184-41-6
                                 383184-43-8
                                               383184-45-0
     383184-39-2
                                                383184-56-3
                                                              383184-58-5
                   383184-50-7 383184-53-0
     383184-48-3
                                                              383184-70-1
                                 383184-65-4
                                                383184-67-6
                   383184-62-1
     383184-60-9
                                                              383184-85-8
                   383184-76-7
                                 383184-79-0
                                                383184-81-4
     383184-72-3
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     383184-87-0
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     383185-07-7 383185-09-9 383185-11-3
     383185-12-4 383185-32-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
IT
     383183-27-5P
                    383183-47-9P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
              THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
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     383183-77-5 383183-78-6 383183-79-7
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     383185-09-9 383185-11-3 383185-12-4
     383185-32-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (synthesis and biol. evaluation of vancomycin dimers with potent
        activity against vancomycin-resistant bacteria, including
        target-accelerated combinatorial synthesis)
     321362-17-8 HCAPLUS
RN
     Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]- (9CI)
                                                                         (CA
CN
     INDEX NAME)
```

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-30-0 HCAPLUS

CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-31-1 HCAPLUS CN Vancomycin, N3''-[[3-[[5-(acetylthio)pentyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-32-2 HCAPLUS
CN Vancomycin, N3''-[[3-[[6-(acetylthio)hexyl]oxy]phenyl]methyl]- (9CI) (CI

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-33-3 HCAPLUS

CN Vancomycin, N3''-[[3-[[10-(acetylthio)decyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 2-A

C1_

PAGE 2-B

RN 383183-34-4 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-butoxyphenyl]methyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

RN 383183-35-5 HCAPLUS
CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-butoxyphenyl]methyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN

383183-36-6 HCAPLUS Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-(heptyloxy)phenyl]methyl]-(9CI) (CA INDEX NAME) CN

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 383183-38-8 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4(phenylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-39-9 HCAPLUS

CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-(phenylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

C1_

PAGE 2-B

RN 383183-40-2 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-[(4-chlorophenyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 383183-41-3 HCAPLUS
CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-[(4-chlorophenyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-42-4 HCAPLUS

CN Vancomycin, N3''-[[4-[3-(acetylthio)propoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

C1__

PAGE 2-B

RN 383183-43-5 HCAPLUS
CN Vancomycin, N3''-[[4-[4-(acetylthio)butoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

Cl_

RN 383183-44-6 HCAPLUS
CN Vancomycin, N3''-[[4-[[5-(acetylthio)pentyl]oxy]phenyl]methyl]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

C1_

PAGE 2-B

RN 383183-45-7 HCAPLUS

CN Vancomycin, N3''-[[4-[[6-(acetylthio)hexyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

C1_

PAGE 2-B

RN 383183-46-8 HCAPLUS
CN Vancomycin, N3''-[[4-[[10-(acetylthio)decyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 383183-71-9 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 383183-72-0 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49(aminoacetyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

RN 383183-73-1 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2R)-2-amino-1-oxopropyl]-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 383183-74-2 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(3-amino-1-oxopropyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-B

RN 383183-75-3 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]-49-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-B

RN

383183-76-4 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(4-amino-1-oxobutyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

PAGE 1-A

RN 383183-77-5 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(7-amino-1-oxoheptyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 383183-78-6 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S,3S)-2-amino-3-methyl-1-oxopentyl]-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

RN 383183-79-7 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-methyl-1-oxobutyl]-28-[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RN

383183-80-0 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-cyclohexyl-1-oxopropyl]-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX CN

PAGE 1-A

PAGE 2-B

RN 383183-81-1 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28[[(carboxymethyl)amino]carbonyl]-28-decarboxy-56-demethyl-, (51S)- (9CI)
(CA INDEX NAME)

RN 383183-82-2 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-hydroxy-1-oxopropyl]-28-[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RN

383184-95-0 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S,3R)-2-amino-3-hydroxy-1-oxobutyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX CN NAME)

PAGE 1-A

PAGE 2-B

RN 383184-97-2 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-4-(methylthio)-1-oxobutyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-B

RN 383184-99-4 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-1-oxo-3-phenylpropyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX

Absolute stereochemistry.

PAGE 1-A

RN

383185-04-4 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-(4-hydroxyphenyl)-1-oxopropyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX CNNAME)

PAGE 1-A

PAGE 2-B

RN 383185-06-6 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-1-oxo-3-(2-thienyl)propyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-B

RN 383185-07-7 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54-amino-26[[(carboxymethyl)amino]carbonyl]-26-decarboxy-53,56-didemethyl- (9CI) (CA
INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 383185-09-9 HCAPLUS
CN Vancomycin, N3''-[[3-[3- (acetylthio)propoxy]phenyl]methyl]-26[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]-49-[(2S)-2,6-diamino-1-oxohexyl]- (9CI) (CAINDEX NAME)

PAGE 1-A

PAGE 2-B

RN 383185-11-3 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54[(aminocarbonyl)amino]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy53,56-didemethyl- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-B

RN 383185-12-4 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-4-(1,1-dimethylethoxy)-1,4-dioxobutyl]-26[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RN 383185-32-8 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54-(1,1-dimethylethoxy)-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-53,56-didemethyl-54-oxo-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

L65 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:689110 HCAPLUS

DN 136:70059

ED Entered STN: 20 Sep 2001

TI Solid- and solution-phase synthesis of vancomycin and vancomycin analogues with activity against vancomycin-resistant bacteria

AU Nicolaou, K. C.; Cho, Suk Young; Hughes, Robert; Winssinger, Nicolas; Smethurst, Christian; Labischinski, Harald; Endermann, Rainer

CS Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA

SO Chemistry--A European Journal (2001), 7(17), 3798-3823 CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1, 33

AB Vancomycin, the prototypical member of the glycopeptide family of antibiotics, is a clin. used antibiotic employed against a variety of drug-resistant bacterial strains including methicillin-resistant Staphylococcus aureus (MRSA). The recent emergence of vancomycin

383184-43-8P

resistance, viewed as a growing threat to public health, prompted us to initiate a program aimed at restoring the potency of this important antibiotic through chemical manipulation of the vancomycin structure. describe the development of synthetic technol. based on the design of a novel selenium safety catch linker, application of this technol. to a solid-phase semisynthesis of vancomycin, and the solid- and solution-phase synthesis of vancomycin libraries. Biol. evaluation of these compound libraries led to the identification of a number of in vitro highly potent antibacterial agents effective against vancomycin-resistant bacteria. In addition to aiding these investigations, the solid-phase chemical described herein is expected to enhance the power of combinatorial chemical and facilitate chemical biol. and medicinal chemical studies. vancomycin analog synthesis antibacterial; selenium safety catch linker solid phase synthesis vancomycin analog Solid phase synthesis (peptide; selenium safety catch linker in synthesis of vancomycin and

vancomycin analogs with activity against vancomycin-resistant bacteria)

IT Antibacterial agents

Antibiotics

ST

IT

Peptide library

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

TT Glycopeptides

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

383183-30-0 383183-31-1 383183-32-2 IT 383183-33-3 383183-34-4 383183-35-5 383183-36-6 383183-37-7 383183-38-8

383183-39-9 383183-40-2 383183-41-3

383183-45-7 383183-46-8 383183-76-4

383424-23-5 383424-24-6 383424-21-3 383424-22-4 383424-20-2

383424-26-8 383424-27-9 383424-25-7

RL: PAC (Pharmacological activity); BIOL (Biological study)

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

IT 321361-97-1P 321362-17-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

119728-56-2P 321361-99-3P 1404-90-6DP, Vancomycin, analogs 321362-09-8P 321362-11-2P 321362-01-0P 321362-05-4P 321362-07-6P 321362-13-4P 383183-42-4P 383183-43-5P 383183-44-6P 383183-71-9P 383183-72-0P 383183-74-2P 383183-75-3P 383183-78-6P

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383184-91-6P 383184-95-0P 383184-97-2P 383184-87-0P

383184-99-4P 383185-04-4P 383185-06-6P

383185-07-7P 383185-09-9P 383185-11-3P 383423-62-9P 383423-61-8P 383185-12-4P 383185-32-8P

383423-68-5P 383423-64-1P 383423-65-2P 383423-66-3P 383423-63-0P 383423-71-0P 383424-16-6P 383424-17-7P 383423-69-6P 383423-70-9P

383424-31-5P 383424-32-6P 383424-33-7P 383424-34-8P

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IT

IT

ΤТ

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383424-49-5P
    383424-45-1P
                   383424-46-2P
                                  383424-47-3P
                                                 383424-48-4P
                                                                 383424-54-2P
                   383424-51-9P
                                  383424-52-0P
                                                  383424-53-1P
     383424-50-8P
                                                                 383424-59-7P
                   383424-56-4P
                                   383424-57-5P
                                                  383424-58-6P
     383424-55-3P
                                                  383424-63-3P
                                                                 383424-64-4P
     383424-60-0P
                   383424-61-1P
                                   383424-62-2P
     383424-65-5P
                   383424-66-6P
                                  383424-67-7P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation)
        (synthesis of vancomycin and vancomycin analogs with activity against
       vancomycin-resistant bacteria)
     100-51-6, Benzenemethanol, reactions
                                           100-83-4
                                                       103-72-0,
     Phenylthioisocyanate
                           107-18-6, 2-Propen-1-ol, reactions
                           112-30-1, 1-Decanol
     1-Octanol, reactions
                                                123-08-0,
                           139-85-5, 3,4-Dihydroxybenzaldehyde
                                                                   507-09-5,
     4-Hydroxybenzaldehyde
     Thiolacetic acid, reactions 627-27-0, 3-Buten-1-ol 627-31-6,
     1,3-Diiodopropane 821-09-0, 4-Penten-1-ol
                                                 821-41-0, 5-Hexen-1-ol
     873-76-7
               1404-93-9, Vancomycin hydrochloride
                                                     13019-22-2, 9-Decen-1-ol
     14002-51-8, [1,1'-Biphenyl]-4-carbonyl chloride
                                                     17746-05-3, Undecanoyl
               133754-40-2D, Selenohypobromous acid, resin-bound 221182-36-1
     chloride
                   383423-48-1
                                 383423-49-2
                                              383423-50-5
                                                             383423-51-6
     273736-70-2
                   383423-53-8
     383423-52-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (synthesis of vancomycin and vancomycin analogs with activity against
       vancomycin-resistant bacteria)
                             4049-39-2P
                                          40359-32-8P
                                                         40663-68-1P
     1404-90-6P, Vancomycin
                                 124201-59-8P
                                                 137916-69-9P
                                                                143231-97-4P
     66488-78-6P
                   105534-98-3P
                                                                 273736-58-6P
     214847-86-6P
                   221182-45-2P
                                  250290-69-8P
                                                 255047-42-8P
                                 273736-68-8DP, resin-bound
     273736-62-2DP, resin-bound
                                                               273736-69-9DP,
                  273736-71-3DP, resin-bound
                                                273736-72-4DP, resin-bound
     resin-bound
     273736-73-5DP, resin-bound
                                 273736-74-6P 273736-75-7P
                                                                383423-47-0DP,
                  383423-54-9DP, resin-bound
                                              383423-55-0DP, resin-bound
     resin-bound
     383423-56-1DP, resin-bound
                                 383423-57-2DP, resin-bound
                                                               383423-58-3DP,
                  383423-60-7DP, resin-bound 383423-72-1DP, resin-bound
     resin-bound
                                  383423-74-3DP, resin-bound
     383423-73-2DP, resin-bound
                                                               383423-75-4DP,
                   383423-76-5DP, resin-bound 383423-77-6DP, resin-bound
     resin-bound
                                   383423-81-2P
                                                                 383423-83-4P
                                                  383423-82-3P
     383423-79-8P
                   383423-80-1P
                   383423-85-6P
                                   383423-87-8P
                                                  383423-88-9P
                                                                 383423-90-3P
     383423-84-5P
                                   383423-95-8P
                                                  383424-00-8P
                                                                 383424-28-0P
     383423-92-5P
                   383423-93-6P
     383424-29-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (synthesis of vancomycin and vancomycin analogs with activity against
        vancomycin-resistant bacteria)
                88036-81-1P 248588-29-6P
                                               383423-86-7P
                                                              383423-89-0P
     5447-02-9P
                   383423-94-7P
                                   383423-96-9P
                                                  383423-97-0P
                                                                 383423-98-1P
     383423-91-4P
                   383424-01-9P
                                   383424-02-0P
                                                  383424-03-1P
                                                                 383424-04-2P
     383423-99-2P
     383424-05-3P
                   383424-06-4P
                                   383424-07-5P
                                                  383424-08-6P
                                                                 383424-09-7P
                                   383424-12-2P
                                                  383424-13-3P
                                                                 383424-14-4P
     383424-10-0P
                   383424-11-1P
     383424-15-5P 383424-30-4P
                                 383424-68-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis of vancomycin and vancomycin analogs with activity against
        vancomycin-resistant bacteria)
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 - RL: PAC (Pharmacological activity); BIOL (Biological study) (synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)
- RN383183-30-0 HCAPLUS
- Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]phenyl]methyl]- (9CI) CNINDEX NAME)

Absolute stereochemistry.

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-31-1 HCAPLUS

CN Vancomycin, N3''-[[3-[[5-(acetylthio)pentyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-32-2 HCAPLUS
CN Vancomycin, N3''-[[3-[[6-(acetylthio)hexyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 383183-33-3 HCAPLUS
CN Vancomycin, N3''-[[3-[[10-(acetylthio)decyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

C1_

PAGE 2-B

RN 383183-34-4 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-butoxyphenyl]methyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-35-5 HCAPLUS
CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-butoxyphenyl]methyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

RN 383183-36-6 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-(heptyloxy)phenyl]methyl](9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

Cl_

PAGE 2-B

383183-37-7 HCAPLUS RN

Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-(heptyloxy)phenyl]methyl]-(9CI) (CA INDEX NAME) CN

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN

383183-38-8 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4(phenylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME) CN

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 383183-39-9 HCAPLUS
CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4(phenylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

Cl_

PAGE 2-B

RN

383183-40-2 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]-4-[(4-chlorophenyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-41-3 HCAPLUS
CN Vancomycin, N3''-[[3-[4-(acetylthio)butoxy]-4-[(4-chlorophenyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

C1__

PAGE 2-B

RN 383183-45-7 HCAPLUS
CN Vancomycin, N3''-[[4-[[6-(acetylthio)hexyl]oxy]phenyl]methyl]- (9CI) (CFINDEX NAME)

Absolute stereochemistry.

PAGE 2-A

Cl_

PAGE 2-B

RN

383183-46-8 HCAPLUS Vancomycin, N3''-[[4-[[10-(acetylthio)decyl]oxy]phenyl]methyl]- (9CI) (CA CNINDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-76-4 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(4-amino-1-oxobutyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-B

IT 321362-17-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

RN 321362-17-8 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

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IT
    383183-42-4P 383183-43-5P 383183-44-6P
    383183-71-9P 383183-72-0P 383183-74-2P
    383183-75-3P 383183-78-6P 383183-79-7P
    383183-80-0P 383183-81-1P 383183-82-2P
    383184-95-0P 383184-97-2P 383184-99-4P
    383185-04-4P 383185-06-6P 383185-07-7P
    383185-09-9P 383185-11-3P 383185-12-4P
    383185-32-8P 383424-31-5P 383424-32-6P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation)
        (synthesis of vancomycin and vancomycin analogs with activity against
        vancomycin-resistant bacteria)
RN
    383183-42-4 HCAPLUS
    Vancomycin, N3''-[[4-[3-(acetylthio)propoxy]phenyl]methyl]- (9CI)
CN
     INDEX NAME)
```

PAGE 1-A

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RN 383183-43-5 HCAPLUS
CN Vancomycin, N3''-[[4-[4-(acetylthio)butoxy]phenyl]methyl]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

Cl_

PAGE 2-B

RN 383183-44-6 HCAPLUS

CN Vancomycin, N3''-[[4-[[5-(acetylthio)pentyl]oxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

C1_

PAGE 2-B

RN 383183-71-9 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-B

383183-72-0 HCAPLUS RN

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(aminoacetyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME) CN

PAGE 1-A

PAGE 1-B

RN 383183-74-2 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(3-amino-1-oxopropyl)-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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PAGE 2-B

RN 383183-75-3 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28
[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2
(methylamino)-1-oxopentyl]-49-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 383183-78-6 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S,3S)-2-amino-3-methyl-1-oxopentyl]-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

RN 383183-79-7 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-methyl-1-oxobutyl]-28-[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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PAGE 2-B

RN 383183-80-0 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-cyclohexyl-1-oxopropyl]-28-[[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 383183-81-1 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-28[[(carboxymethyl)amino]carbonyl]-28-decarboxy-56-demethyl-, (51S)- (9CI)
(CA INDEX NAME)

PAGE 1-A

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PAGE 2-B

RN 383183-82-2 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-hydroxy-1-oxopropyl]-28-[(carboxymethyl)amino]carbonyl]-28-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN

383184-95-0 HCAPLUS
Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S,3R)-2-amino-3-hydroxy-1-oxobutyl]-26-[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX CN

PAGE 1-A

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RN 383184-97-2 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-4-(methylthio)-1-oxobutyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

 ${\bf Absolute \ stereochemistry.}$

PAGE 1-A

PAGE 1-B

RN 383184-99-4 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-1-oxo-3-phenylpropyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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383185-04-4 HCAPLUS RN

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-3-(4-hydroxyphenyl)-1-oxopropyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX CNNAME)

PAGE 1-A

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RN 383185-06-6 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-1-oxo-3-(2-thienyl)propyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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RN 383185-07-7 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54-amino-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-53,56-didemethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

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RN

383185-09-9 HCAPLUS
Vancomycin, N3''-[[3-[3- (acetylthio)propoxy]phenyl]methyl]-26[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]-49-[(2S)-2,6-diamino-1-oxohexyl]- (9CI) CN(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN 383185-11-3 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54[(aminocarbonyl)amino]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy53,56-didemethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

RN 383185-12-4 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2amino-4-(1,1-dimethylethoxy)-1,4-dioxobutyl]-26[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RN383185-32-8 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-54-(1,1-dimethylethoxy)-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-53,56-didemethyl-54-oxo- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

PAGE 1-A

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RN 383424-31-5 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-[(2S)-2-amino-1-oxopropyl]-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 383424-32-6 HCAPLUS

Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-(6-amino-1-oxohexyl)-26-[[(carboxymethyl)amino]carbonyl]-26-decarboxy-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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PAGE 2-B

IT 383424-29-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

RN 383424-29-1 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-56-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IT 383424-30-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of vancomycin and vancomycin analogs with activity against vancomycin-resistant bacteria)

RN 383424-30-4 HCAPLUS

CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]-49-de[4-methyl-2-(methylamino)-1-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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- L65 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:818978 HCAPLUS
- DN 134:116215
- ED Entered STN: 22 Nov 2000
- TI Target-accelerated combinatorial synthesis and discovery of highly potent antibiotics effective against vancomycin-resistant bacteria
- AU Nicolaou, K. C.; Hughes, Robert; Cho, Suk Young; Winssinger, Nicolas; Smethurst, Christian; Labischinski, Harald; Endermann, Rainer
- CS Skaggs Inst. Chemical Biology, Scripps Res. Inst., La Jolla, CA, 92037, USA
- SO Angewandte Chemie, International Edition (2000), 39(21), 3823-3828 CODEN: ACIEF5; ISSN: 1433-7851
- PB Wiley-VCH Verlag GmbH
- DT Journal
- LA English
- CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1
- OS CASREACT 134:116215

GI



AB The authors report the application of direct target-accelerated combinatorial synthesis (TACS) of vancomycin dimers for the identification of ligands with the highest affinity for vancomycin's receptor, D-Ala-D-Ala. For example, solid- and solution-phase combinatorial chemical were

used to synthesize a library of vancomycin substrates, from which a set of monomers I [n = 2-4; X = SCOMe, CH:CH2; R = H, D-(NMe)Leu, β-Ala, L-Asn, etc.] were chosen for the target-accelerated dimerization step. I (X = SCOMe) was subjected to ligation by disulfide bond formation and I (X = CH:CH2) was subjected to ligation by olefin metathesis in both the absence and presence of vancomycin's targets, Ac-D-Ala-D-Ala-OH and Ac-Lys(Ac)-D-Ala-D-Ala-OH, for which vancomycin has the greatest affinity. Here, a strong target-induced rate acceleration was observed in the presence

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of these targets. Thus, target-accelerated combinatorial synthesis was performed, and from this library, several olefin metathesis dimers of I [n = 2-4; R = H, D-(NMe)Leu, β -Ala, Asn] and disulfide dimers of I [n = 2,3; R = D-(NMe)Leu] were identified, and these were, then, individually synthesized from their resp. monomers. Antibacterial activity for these dimers were reported; of them, some have potent activities against vancomycin-resistant enterococci (VRE) and vancomycin intermediate susceptible Staplhnylococcus arureus (VISA) that rival or exceed the most active compds. known today for these bacterial strains.

ST target accelerated combinatorial synthesis vancomycin dimer library; olefin metathesis dimer vancomycin synthesis; disulfide vancomycin dimer synthesis; vancomycin dimer antibiotic activity resistant bacteria VRE VISA

IT Peptides, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cyclic; target-accelerated combinatorial synthesis of vancomycin dimers as highly potent antibiotics effective against vancomycin-resistant bacteria)

IT Antibiotics

(macrolide; target-accelerated combinatorial synthesis of vancomycin dimers as highly potent antibiotics effective against vancomycin-resistant bacteria)

IT Antibiotic resistance

Combinatorial library

(target-accelerated combinatorial synthesis of vancomycin dimers as highly potent antibiotics effective against vancomycin-resistant bacteria)

IT Combinatorial chemistry

(target-accelerated; preparation of vancomycin substrates for the target-accelerated combinatorial synthesis of vancomycin dimers)

IT 19993-26-1 24570-39-6

RL: NUU (Other use, unclassified); USES (Uses)

(as the "target" in the target-accelerated combinatorial synthesis of vancomycin dimers)

IT 321361-97-1P 321361-99-3P 321362-01-0P 321362-03-2P 321362-05-4P 321362-07-6P 321362-09-8P 321362-11-2P 321362-13-4P 321362-15-6P 321362-17-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of vancomycin substrates for the target-accelerated combinatorial synthesis of vancomycin dimers)

IT 60-54-8, Tetracycline 1404-90-6, Vancomycin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(target-accelerated combinatorial synthesis of vancomycin dimers as highly potent antibiotics effective against vancomycin-resistant bacteria)

IT 321361-73-3P 321361-75-5P 321361-77-7P 321361-79-9P 321361-81-3P 321361-83-5P 321361-85-7P 321361-87-9P 321361-89-1P 321361-91-5P 321361-93-7P 321361-95-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(target-accelerated combinatorial synthesis of vancomycin dimers as highly potent antibiotics effective against vancomycin-resistant bacteria)

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- 321362-15-6P 321362-17-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of vancomycin substrates for the target-accelerated combinatorial synthesis of vancomycin dimers)

- RN321362-15-6 HCAPLUS
- Vancomycin, N3''-[[3-[2-(acetylthio)ethoxy]phenyl]methyl]- (9CI) CNINDEX NAME)

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RN 321362-17-8 HCAPLUS
CN Vancomycin, N3''-[[3-[3-(acetylthio)propoxy]phenyl]methyl]- (9CI) (CFINDEX NAME)

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